REMARKS

Claims 1-33 are pending. Claims 1, 2, and 5-7 have been amended. Claims 1, 8, 13, 16, 19, 23, 25, 30 and 32 are the independent claims. Applicant notes with appreciation the allowance of Claims 8-33.

Claims 1-6 were rejected under 35 U.S.C. § 103 over U.S. Patent 6,016,185 (Cullman et al.) in view of U.S. Patent Publication US2003/0117482A1 (Border et al.). Applicant submits that amended claim 1 is patentable for at least the following reasons.

Amended claim 1 is directed to a micro lens array. The array includes: a transparent substrate having a plurality of lenses formed on one principal surface of the substrate; and a positioning plate coupled to the substrate and having a plurality of guide pin insertion through holes formed through the positioning plate at locations outside the transparent substrate.

For example, as shown in Figs. 1 and 2 of the present application, a transparent substrate 10 has a plurality of lenses Li formed on one surface thereof, and is coupled to a position plate 20 with guide holes 26, 28 and pins 12, 14. The positioning plate 20 has through holes 28 and 30 at locations outside the substrate. Positioning pins 32 and 34 are inserted in the through holes 28 and 30 to locate the lenses at desired locations. Of course, the invention is in no way limited to the disclosed embodiments, which are for illustrative purposes only.

The position was taken in the Office Action that Cullman shows a transparent substrate 204 having a plurality of lenses 400-1 formed in the middle of the substrate with a plurality of lens array substrates which can be stacked/aligned using rod-like positioning members, in conjunction with tapered holes 802. However, Fig. 8 shows the relation of the groove (tapered hole) 802 and the ball (rod-like positioning member) 800, for positioning the substrates 801 and 804. From this figure it is clear that Cullman does not use or have *through* *holes*, as recited. Further, Cullman neither teaches nor suggests the coupling between the substrate and a positioning plate as in claim 1 in which the guide pin insertion through holes are formed through the positioning plate at locations outside of the transparent substrate.

Border shows an optical lens array 8 including a plurality of lenses 11a formed on a surface of a transparent substrate. Marks 13 are formed on the substrate for optical alignment. In Fig. 8, a plurality of optical fibers 100 are inserted in a transparent substrate 106. Fig. 1b shows through holes 15 in the laser array 9. However, the through holes 15 are registered with the marks 13, and are not positioned outside the substrate. For at least this reason, Border does not remedy the above-mentioned deficiency of Cullman as a reference against claim 1 and that claim is clearly patentable thereover. Moreover, the double mechanical guiding structure as recited in dependent claims 2-4 are not taught or suggested by Cullman and Border, taken individually or in combination.

The other claims in this application are each dependent from independent claim 1 discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

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Respectfully submitted,

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